2.1 MINIMUM WATER QUALITY PROTECTION REQUIREMENTS FOR DEVELOPMENT CONSTRUCTION PROJECTS

Unless specifically exempted, **all** Development Construction Projects will be required to implement best management practices (BMPs) necessary to reduce pollutants to the Maximum Extent Practicable[3] (MEP) to meet the minimum water quality protection requirements as defined in Table 2-1. Development Construction Projects covered under this program include any action proposed by a property owner/developer which requires the issuance of a building or grading permit and includes construction activities, except projects determined to be exempt (as discussed in Section 2.4). Construction activities include activities such as clearing, grading, excavation, road construction, structure construction, or structure demolition that result in soil disturbance.

As a condition for issuing a grading or building permit, ***applicants for covered Development Construction Projects shall be required to certify that they understand and will comply with the minimum requirements defined in Table 2-1***. Appendix B provides an example certification statement regarding compliance with these minimum standards that project applicants may use.

Table 2-1
Minimum Water Quality Protection Requirements for Development Construction Projects Subject to Storm Water Construction Controls

Category	Minimum Requirements	BMPs(1)
1. Sediment Control	Sediments generated on the project site shall be retained using adequate Treatment Control or Structural BMPs.	Sediment Control
2. Construction Materials Control	Construction-related materials, wastes, spills or residues shall be retained at the project site to avoid discharge to streets, drainage facilities, receiving waters, or adjacent properties by wind or runoff. Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained at the project sites.	Site Management; Material and Waste Management
3. Erosion Control	Erosion from slopes and channels shall be controlled by implementing an effective combination of BMPs, such as the limiting of grading scheduled during the wet season; inspecting graded areas during rain events; planting and maintenance of vegetation on slopes; and covering erosion susceptible slopes.	Erosion Control

(1) BMPs that may be used to meet the minimum requirements are described in Section 2.4.

[3] Maximum Extent Practicable (MEP) is the standard for implementation of storm water management programs to reduce pollutants in storm water. CWA § 402(p)(3)(B)(iii) requires that municipal permits " shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and systems, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." See also Stare Board Order WQ 2000-11 at page 20.

2.2 DEVELOPMENT CONSTRUCTION PROJECTS REQUIREMENTS

2.2.1 Developer Requirements for Construction Projects with One Acre and Greater of Disturbed Soil

In addition to the minimum BMPs requirements in Section 2.1, applicants for Construction Projects between one acre and five acres of disturbed soil must prepare a local storm water pollution prevention plan (Local SWPPP) prior to receiving a building or grading permit. The local SWPPP covers construction materials and waste management control, and must certify that applicants will implement the Local SWPPP year-round. The Local SWPPP shall include:

- The name, location, period of construction, and a brief description of the project;
- Contact information for the owner and contractor;
- The building permit number for the project;
- The grading permit number for the project (where applicable);
- A list of major construction materials, wastes, and activities at the project site;
- A list of best management practices to be used to control pollutant discharges from major construction materials, wastes, and activities;
- A site plan (construction plans may be used) indicating the selection of BMPs and their location where appropriate;
- Non-storm water discharges, their locations, and the BMPs necessary to prevent the discharge;
- A maintenance and self-inspection schedule of the BMPs to determine the effectiveness and necessary repairs of the BMPs; and
- A developer's certification statement that all required and selected BMPs will be effectively implemented.

A copy of the developer's certification statement (Appendix D, Section 4) must be submitted prior to issuance of a building or grading permit. Documents may be submitted separately or placed as notes on project building or grading plans. A copy of the Local SWPPP must be kept on the project site at all times after the start of construction.

The local SWPPP certification shall be signed by the project owner as follows, for a corporation: by a responsible corporate officer which means (a) a president, secretary, treasure, or vice president of the corporation in change of a principal business function, or any other person who

performs similar policy or decision-making functions for the corporation, or (b) the manager of the construction activity if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures; for a partnership or sole proprietorship: by a general partner or the proprietor; or for a municipality or other public agency: by an elected official, a ranking management official (e.g., County Administrative Office, City Manager, Director of Public Works, City Engineer, District Manager), or the manager of the construction activity if authority to sign local SWPPPs has been assigned or delegated to the manager in accordance with established agency policy.

Developers are required to complete an inspection checklist (see Appendix C) to document site observations associated with rain events as follows:

- Before every rainfall event that is predicted to produce observable runoff and after every rainfall event that produces observable runoff, and
- At 24-hour intervals during extended rainfall events (excepting weekends or holidays when there is no ongoing site activity on those days).

All applicants for Construction Projects must also prepare and implement a Wet Weather Erosion Control Plan (WWECP) if the project will leave soil disturbed during the rainy season, defined as November 1 through April 15. The WWECP must be prepared, for projects that have already broken ground, not later than 30 days prior to the beginning of each rainy season (i.e., by October 1) during which soil will be disturbed, and implemented throughout the entire rainy season. For projects that will begin construction during the rainy season, the WWECP must be available 30 days before construction commences. The WWECP shall include the following information:

- The name, location, period of construction, and a brief description of the project
- Contact information for the owner and contractor
- A site map (construction plans may be used) showing the location of erosion control and sediment control BMPs that will be implemented for the rainy season
- A certification statement that all required and selected BMPs will be effectively implemented (see Appendix D, Section 4).

A copy of the WWECP must be kept on the project site at all times beginning 30 days prior to the start of the rainy season through the end of the rainy season (October 1 - April 15).

Guidance and example forms for preparation of Local SWPPPs and WWECPs are included in Appendix D.

Commencing March 10, 2003, the requirements listed below for construction projects with five acres and greater of soil disturbance shall apply to construction projects with one acre and greater of soil disturbance.

2.2.2 Developer Requirements for Construction Projects with Five Acres and Greater of Disturbed Soil

Construction projects with five acres and greater of disturbed soil must comply with all conditions in Sections 2.1 and 2.2.1 above as well as the requirements for projects subject to the General Construction Permit in Section 2.2.3 below.

2.2.3 Developer Requirements for Construction Projects Subject to General Construction Permit

Developers of construction sites subject to the General Construction Permit are required to prepare and implement a Storm Water Pollution Prevention Plan. A storm water pollution prevention plan prepared for projects subject to and in conformance with the requirements of the General Construction Permit is referred to herein as a "state SWPPP". The state SWPPP will address all categories of control measures, and has specific documentation requirements. The General Construction Permit can be viewed or downloaded from the State Water Resources Control Board's web page: www.swrcb.ca.gov/stormwtr/construction.htm.[3] It is the obligation of the developer to determine whether a project is subject to the General Construction Permit.

2.2.4 Permittee Requirements for Projects Subject to the General Construction Permit

Before issuing building or grading permits, Permittees will require applicants to demonstrate proof of a Waste Discharge Identification (WDID) Number for filing a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) and a certification that a state SWPPP has been prepared by the project developer. An example certification form is included in Appendix E that may be used for this purpose. Certification may be submitted separately or placed as a note on project building or grading plans. A local SWPPP may substitute for the State SWPPP if the Local SWPPP is at least as inclusive in controls and BMPs as the State SWPPP.

[3] A copy of the General Construction Permit can also be obtained from the Los Angeles Regional Board at 320 W. 4th Street, Suite 200, Los Angeles, CA 90013; telephone 213.576.6600.

At any time if the developer transfers the ownerships for the entire development or portions of the common plan of development where construction activities are still on-going, the Permittees will require the proof of an Notice of Intent (NOI) and a copy of the SWPPP.

2.3 EXEMPT PROJECTS

Permittees may exempt certain types of Development Construction Projects from the program that pose a minimum risk of storm water pollution. These projects are exempt from any storm water construction control measures including the minimum BMP requirements. A specific listing of exempt projects is included in this section. Additional exemptions may be determined by the local building official (or equivalent municipal authority) and shall be provided to the Regional Board with a justification for their designation (for purposes of notification).

A list of specific types of Development Construction Projects that are deemed to be exempt include:

- Routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility;
- Emergency construction activities required to immediately protect public health and safety;
- Interior remodeling with no outside exposure of construction materials or construction waste to storm water;
- Mechanical permit work; and
- Sign permit work.

Other types of Development Construction Projects may be designated as exempt if all three of the following criteria are met:

- No significant soil disturbing activity;
- No outside storage or exposure to storm water of construction materials or construction wastes (unless adequate controls are provided); and
- The activity poses a minimal risk of storm water pollution.

2.4 BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs) are the specific storm water management techniques that are applied to manage construction site runoff. A listing of specific BMPs appropriate for construction activities are summarized in Table 2-2 and have been organized into four major categories:

- ***Sediment Control***. Feasible methods of trapping eroded sediments so as to prevent a net increase in sediment load in storm water discharges from the site.

- ***Erosion Control***. Measures that prevent erosion and keep soil particles from entering storm water, lessening the eroded sediment that must be trapped, both during and at the completion of construction.

- ***Site Management***. Methods to manage the construction site and construction activities in a manner that prevents pollutants from entering storm water, drainage systems, or receiving waters.

- ***Materials and Waste Management***. Methods to manage construction materials and wastes that prevent their entry into storm water, drainage systems, or receiving waters.

These BMPs address multiple construction activity-related pollutants and focus on erosion and sediment control practices, source minimization, education, good housekeeping, good waste management, and good site planning. Under this Program, additional BMPs are applied when the potential for adverse environmental effects from storm water runoff increases. For example, developers/contractors with construction projects having less than one acre of disturbed soil may use any combination of BMPs to meet the minimum requirements. However, developers with construction sites having greater than one acre of disturbed soil should consider all listed BMPs and, at a minimum, must prepare a Local SWPPP and a WWECP that include the following BMPs:

- ***Sediment Control*** - At site perimeters, below significant slopes (as defined by the local authority but at a minimum applied to grades of 5:1 H:V or greater), and at other similar locations, the use of at least one type of BMP such as silt fence, straw bale, or sand bag barrier to minimize the transport of sediment. At interior storm drain inlets the use of at least one type of inlet protection BMP to minimize the transport of sediment off-site.

- ***Erosion Control*** - On completed disturbed surfaces, the use of at least one type of erosion control (soil stabilization) BMP during the rainy season.

- ***General Site Management and Materials and Waste Management*** - All BMPs applicable to specific construction operations, if such construction operations will occur at the site.

Since avoiding construction activities and/or disturbing soil during the rainy season is the most effective approach to minimize water quality impacts, developers should be advised of this concern and encouraged to minimize such impacts. SWPPP/WWECPs and/or BMPs may be submitted in the form of plan sheets.

2.4.1 Permittee BMP-Related Requirements

Guidance material about the BMPs that may be implemented to meet minimum requirements will be provided by the Permittees to developers/contractors when requested. Permittees will inform developers/contractors that this guidance material is available. Similar guidance material will be provided to site inspectors for use in assisting contractors to meet the minimum requirements. Three forms of guidance material are included in this Program:

- A BMP selection matrix in Table 2-2 provides guidance for selecting BMPs for different types of construction activities. The columns on Table 2-2 list the types of construction activities that pose a risk of causing storm water pollution. Each "x" within a column indicates a BMP that should be considered for this type of construction activity.

- BMP selection guidance is provided in Appendix F.

- BMP fact sheets describing each BMP are provided in Appendix G.

2.4.2 Outreach

The Principal Permittee, in conjunction with other Permittees, has developed a series of outreach brochures, each focusing on a different audience. The brochures provide a brief description of stormwater and urban runoff pollution, and BMPs that can be implemented to minimize pollution. The brochures also provide telephone numbers to call for further information, or to report potential pollution problems. Brochures related to private construction include: Painting; Heavy Equipment & Earth Moving Activities; Roadwork and Paving; Fresh Concrete and Mortar Application; General Construction and Site Supervision; Home Repair & Remodeling; Landscaping, Gardening, & Pest Control; and Blueprint for a Clean Ocean-Best Management Practices to Prevent Stormwater Pollution from Construction-Related Activities. Copies of these brochures are included in Appendix K.

Table 2-2. Stormwater Pollution Controls for Construction Activities

Stormwater Best Management Practices	BMP No. (1)	Categories of Activities: Site Preparation/ Earthmoving		Construction of Underground Structures				Construction of Above Ground Structures				Construction of Roadways, Walkways & Parking Lots			Waterways					Planting & Landscaping			
		Clearing & Grubbing	Earthwork	Foundations	Conduits (Open Cut)	Drilling	Tunnels	Wood Frame	Structural Steel	Masonry & Concrete	Roofing & Coating	Concrete	Asphalt	Base & Subgrade	Channel Improvement	Water & Sediment Impoundment	Over Crossing	Under Crossing	Waterfront Construction	Irrigation Facilities	Seeding & Sodding	Mulching	Planting
General Site Management																							
Construction Practices																							
Dewatering Operations	CA001		X	X	X	X	X								X	X	X	X	X				
Paving Operations	CA002											X	X	X	X		X	X					
Structure Construction & Painting	CA003			X			X	X	X	X	X						X	X	X				
Vehicle & Equipment Management																							
Vehicle & Equipment Cleaning	CA030	X	X	X	X	X	X					X	X	X					X				
Vehicle & Equipment Fueling	CA031	X	X	X	X	X	X					X	X	X					X				
Vehicle & Equipment Maintenance	CA032	X	X	X	X	X	X					X	X	X					X				
Contractor Training																							
Employee/Subcontractor Training	CA040	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Construction Materials & Waste Management (2)																							
Material Management																							
Material Delivery & Storage	CA010			X	X			X	X	X	X	X	X	X	X		X	X	X		X	X	X
Material Use	CA011			X	X			X	X	X	X	X	X	X	X		X	X	X		X	X	X
Spill Prevention & Control	CA012									X	X		X										
Waste Management																							
Solid Waste Management	CA020	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hazardous Waste Management	CA021									X	X	X	X										
Contaminated Soil Management	CA022	X	X	X	X	X	X								X	X							
Concrete Waste Management	CA023			X	X		X			X		X			X		X	X		X			
Sanitary/Septic Waste Management	CA024	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

(1) Numbers refer to California Best Management Practices Handbook (See Appendix H)

(2) Some practices are also covered under other regulatory programs. See BMP fact sheets in Appendix H for details.

Table 2-2. Stormwater Pollution Controls for Construction Activities

Stormwater Best Management Practices	BMP No. (1)	Categories of Activities																						
		Site Preparation/ Earthmoving		Construction of Underground Structures				Construction of Above Ground Structures				Construction of Roadways, Walkways & Parking Lots			Waterways					Planting & Landscaping			
		Clearing & Grubbing	Earthwork	Foundations	Conduits (Open Cut) Drilling		Tunnels	Wood Frame	Structural Steel	Masonry & Concrete Roofing & Coating		Concrete	Asphalt	Base & Subgrade	Channel Improvement Water & Sediment Impoundment		Over Crossing	Under Crossing	Waterfront Construction	Irrigation Facilities	Seeding & Sodding	Mulching	Planting
Erosion Control																								
Site Planning Considerations																								
Scheduling	ESC01	X	X		X							X	X	X	X	X	X	X	X	X	X	X	X	X
Preservation of Existing Vegetation	ESC02	X	X		X		X					X	X	X	X	X	X	X	X	X		X		
Vegetation Stabilization																								
Temporary Seeding & Planting	ESC10	X	X												X	X	X		X					
Temporary Mulching	ESC11	X	X												X	X	X		X					
Physical Stabilization																								
Geotextiles & Mats	ESC20	X	X												X	X	X	X	X					
Dust Control	ESC21	X	X		X							X	X	X	X	X	X	X	X	X	X	X	X	X
Tempory Stream Crossing	ESC22	X	X	X	X	X	X	X	X					X	X	X	X	X		X	X	X	X	X
Construction Road Stabilization	ESC23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Diversion of Runoff																								
Earth Dike	ESC30	X	X		X										X	X		X	X		X	X		
Temporary Drains & Swales	ESC31	X	X		X										X	X		X	X					
Slope Drain	ESC32	X	X		X										X	X		X	X					
Velocity Reduction																								
Outlet Protection	ESC40	X	X		X										X	X			X					
Check Dams	ESC41	X	X		X										X	X			X					
Slope Roughening/Terracing	ESC42	X	X		X										X	X			X					
Sediment Control																								
Silt Fence	ESC50	X	X		X										X	X		X	X					
Straw Bale Barrier	ESC51	X	X		X										X	X		X	X					
Sand Bag Barrier	ESC52	X	X		X										X	X		X	X					
Brush or Rock Filter	ESC53	X	X		X										X	X		X	X					
Storm Drain Inlet Protection	ESC54	X	X		X										X	X		X	X					
Sediment Trap	ESC55	X	X		X										X	X		X	X					
Sediment Basin	ESC56	X	X		X										X	X		X	X					
Stabilized Construction Entrance	ESC24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

(1) Numbers refer to California Best Management Practices Handbook (See Appendix H).

(2) Some practices are also covered under other regulatory programs. See BMP fact sheets in Appendix H for details.